IN THE CLAIMS

Please amend the claims as follows:

1-14. (Cancelled)

15. (Currently Amended)) A system for determining capture thresholds for a multi-site cardiac pacemaker, comprising:

a pacemaker having: (a) first and second pacing channels with each such channel comprising an electrode for disposing near a chamber of the heart, a pulse generator for outputting pacing pulses, and a channel interface for adjusting the pacing pulse energy, (b) a controller for controlling the operation of the pulse generators in accordance with a programmed pacing mode such that first and second pacing pulses are delivered from the first and second pacing channels, respectively, to one or both of the paired atria or to one or both of the paired ventricles during a cardiac cycle, and (c) a telemetry interface for communicating with an external programmer;

an external programmer having a controller for processing data received from the pacemaker, wherein the controller is programmed to record a test depolarization waveform produced by the pacing pulses and compare the test waveform with a template of a depolarization waveform representing capture of the heart by ~~at least one pacing pulse~~ each of the pacing pulses delivered collectively by the pacing channels in order to determine if capture has been achieved by one or more of the delivered pacing pulses.

16. (Original) The system of claim 15 further comprising an evoked response sensing channel in the pacemaker comprising an electrode and a sense amplifier for sensing an evoked response generated after a pacing pulse and wherein the test waveform is an electrogram from the evoked response sensing channel and transmitted to the external programmer.

17. (Original) The system of claim 15 wherein the test waveform is a surface electrocardiogram.

18. (Original) The system of claim 15 wherein the controller of the external programmer is programmed to compare the test and template waveforms by performing a time-domain cross-correlation.

19. (Original) The system of claim 15 wherein the controller is programmed to compare the test waveform with template waveforms representing capture of the heart by each of the pacing pulses delivered individually by the pacing channels and with a template waveform representing capture of the heart by each of the pacing pulses delivered collectively by the pacing channels in order to determine which of the delivered pacing pulses have achieved capture.

20. (Original) The system of claim 15 wherein the external programmer controller is further programmed to vary the pulse energy of the pacing pulses in order to determine a capture threshold for a pacing channel.

21. (Original) The system of claim 20 wherein the external programmer controller is further programmed to lower the pacing pulse energy of a pacing channel until capture is no longer achieved by that channel in order to determine the capture threshold.

22. (Original) The system of claim 21 wherein the external programmer controller is programmed to determine a capture threshold for each of the first and second pacing channels by lowering the pacing energy of each pacing channel separately until the test waveform no longer matches a template waveform representing capture by both of the first and second pacing pulses.

23. (Original) The system of claim 21 wherein the external programmer controller is programmed to determine a capture threshold of the first and second pacing channels by:

lowering the pacing energy of the first pacing channel until the test waveform matches a template waveform representing capture by the second pacing pulse but not by the first pacing pulse; and,

lowering the pacing energy of the second pacing channel until the test waveform matches a template waveform representing capture by the first pacing pulse but not by the second pacing pulse.

24. (Original) The system of claim 21 wherein the external programmer controller is programmed to:

lower the pacing energy of the first and second pacing channels simultaneously until the test waveform no longer matches a template waveform representing capture by both of the first and second pacing pulses;

compare the test waveform to a template waveform representing capture by a pacing pulse delivered only from the first pacing channel and to a template waveform representing capture by a pacing pulse delivered only from the second pacing channel to determine the capture threshold of the pacing channel or channels that failed to capture in the previous step; and,

determine the capture threshold of a pacing channel that succeeded in capturing in the previous step by lowering the pacing energy of that channel until the test waveform no longer matches a template waveform representing capture by a pacing pulse delivered individually from that channel.

25. (Original) The system of claim 20 wherein the external programmer controller is further programmed to adjust the pacing pulse energy of a pacing channel in accordance with the results of the capture threshold determination.

26. (Currently Amended) A method for determining capture thresholds for a multi-site cardiac pacemaker, comprising:

delivering first and second pacing pulses through first and second pacing channels, respectively, to either the atria or the ventricles during a cardiac cycle in accordance with a programmed pacing mode; and,

recording ~~an evoked response~~ a test depolarization waveform produced by the pacing pulses and comparing the test waveform with a template depolarization waveform representing capture of the heart by ~~at least one pacing pulse~~ each of the pacing pulses delivered collectively by the pacing channels in order to determine if capture has been achieved by the delivered pacing pulses.

~~25~~27. (Renumbered and Currently Amended) The method of claim ~~24~~ 26 wherein the comparison between the test and template waveforms is performed with a time-domain cross-correlation.

~~26~~28. (Renumbered and Currently Amended) The method of claim ~~24~~ 26 wherein the test waveform is a surface electrocardiogram.

~~27~~29. (Renumbered and Currently Amended) The method of claim ~~24~~ 26 further comprising comparing the test waveform with template waveforms representing capture of the heart by each of the pacing pulses delivered individually by the pacing channels and with a template waveform representing capture of the heart by each of the pacing pulses delivered collectively by the pacing channels in order to determine which of the delivered pacing pulses have achieved capture.

~~28~~30. (Renumbered and Currently Amended) The method of claim ~~24~~ 26 further comprising varying the pulse energy of the pacing pulses in order to determine a capture threshold for a pacing channel.

~~29~~31. (Renumbered and Currently Amended) The method of claim ~~28~~ 30 further comprising lowering the pacing pulse energy of a pacing channel until capture is no longer achieved by that channel in order to determine the capture threshold.

~~30~~32. (Renumbered and Currently Amended) The method of claim ~~29~~ 31 further comprising determining a capture threshold for each of the first and second pacing channels by lowering the pacing energy of each pacing channel separately until the test waveform no longer matches a template waveform representing capture by both of the first and second pacing pulses.

~~31~~33. (Renumbered and Currently Amended) The method of claim ~~29~~ 31 further comprising determining a capture threshold of the first and second pacing channels by:

lowering the pacing energy of the first pacing channel until the test waveform matches a template waveform representing capture by the second pacing pulse but not by the first pacing pulse; and,

lowering the pacing energy of the second pacing channel until the test waveform matches a template waveform representing capture by the first pacing pulse but not by the second pacing pulse.

~~32~~34. (Renumbered and Currently Amended) The method of claim ~~29~~ 31 further comprising:

lowering the pacing energy of the first and second pacing channels simultaneously until the test waveform no longer matches a template waveform representing capture by both of the first and second pacing pulses;

comparing the test waveform to a template waveform representing capture by a pacing pulse delivered only from the first pacing channel and to a template waveform representing capture by a pacing pulse delivered only from the second pacing channel to determine the capture threshold of the pacing channel or channels that failed to capture in the previous step; and,

determining the capture threshold of a pacing channel that succeeded in capturing in the previous step by lowering the pacing energy of that channel until the test waveform no longer

matches a template waveform representing capture by a pacing pulse delivered individually from that channel.

~~33~~35. (Renumbered and Currently Amended) The method of claim ~~29~~ 31 further comprising adjusting the pacing pulse energy of a pacing channel in accordance with the results of the capture threshold determination.

36. (Cancelled)